



# Season's Greetings!

# The Eagle

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## SMDC commander announces initiative on cruise, theater, national missile defense

by Jonathan Pierce  
Huntsville, Ala.

A new initiative in cruise, theater and national missile defense was announced at the Association of the United States Army (AUSA) Symposium Dec. 7 in El Paso, Texas.

Lieutenant General John Costello, commanding general of the U.S. Army Space and Missile Defense Command, said he would develop an operational concept for globally integrated missile defense.

"I'm trying to change the way we look at our ability to counter missile threats to our homeland and our deployed forces," said Costello. "The line between theater and global missile capabilities will become increasingly blurred as countries begin developing the delivery to reach the United States and to threaten our allies."

Costello said the Army is developing or designing weapons to counter land attack cruise missiles and tactical ballistic missiles. He noted that such weapons could be launched from platforms operating off-shore or elsewhere in the Western Hemisphere. The weapons used to defend against such cruise or tactical ballistic missiles directed against the United States would in fact be providing national missile defense.

He said that the theater commanders-in-chief and the USCINCSpace use the same satellite constellations to detect missile launches, and they use the same early warning networks to alert our forces or our



Photo by Steve Gover

Lieutenant General John Costello, commanding general of the U.S. Army Space and Missile Defense Command answers reporters questions during a press briefing at the AUSA El Paso Symposium.

nation to potential attack.

Costello noted the "tremendous degree of commonality between tactical missile defense, cruise missile defense, and national missile defense." But his comments indicated that commonality isn't enough.

"The United States will have three internal, interoperable families of systems," said

Costello, referring to the cruise, theater, and national missile defense systems. "But not three families of systems completely interoperable with each other," he said.

Globally integrated missile defense will not happen unless we start planning now for shared situational awareness among the commanders in chief, said Costello.

## BMDO director calls for quality, reliability

A strong call for quality and reliability in the nation's missile defense programs was issued at the Association of the United States Army (AUSA) Space and Missile Defense Symposium and Exhibition on Dec. 6.

Lieutenant General Ronald T. Kadish, USAF, director of the Ballistic Missile Defense Organization (BMDO), issued the call during the symposium's keynote address.

"I will be ruthless in demanding the highest standards of quality and reliability of the systems we put in the field and in the hands of the soldiers, sailors and airmen," Kadish said. It [quality and reliability] starts with the quality of the design and the quality of our program structures, and the qualities of our acquisition strategies. There should be no detail too small to go after," he said.

"We've got differences of opinion across

the country on this [missile defense]; certainly our critics do. But the best thing to do in the face of our critics is to be successful... [on] our flight test programs, our ground test programs, and on our fielded systems. The best path to do that," Kadish said, "is quality and reliability and excellence in all we do."

The BMDO director also expressed concern over interservice and intersystem rivalry.

"No one service or system can do this job [missile defense]," he said.

"To the degree that we are self-interested and motivated to be such—whether it's because of competitive advantage in industry or government advocacy of a tightly, strongly held opinion—we can produce *program fratricide*. In most cases, [competition] will not be helpful to the overall system," said Kadish.

"If the last year has taught me anything, it's a success for one program is a success for all of us. It doesn't matter whether you are working on Patriot, national missile defense, Navy-area... if we don't take that attitude then it's going to be a very difficult situation for us to birth these programs," he said.

"We cannot forget, to be ultimately successful, a layered interoperable defense in missile defense means you have to be joint," said Kadish.

Kadish recognized the important mix of government and industry.

"The government team is only as good as our contractors," he said. "The government doesn't produce these systems, our contractors produce these systems. [Contractors] make our systems work, and [they] must make them... reliable...and affordable. We are in it together," he said.

Leadership Commentary

# Costello expresses appreciation, urges safety and season's greetings

The Holiday/New Year season is a very special time of year. It is a time for traveling, getting together with family and friends and parties. This year, as in the years past, many members of our SMDC team will be away from their families during the holiday season. They remain on guard protecting the Nation from danger on several fronts. In their honor, I have designated 22 December and 29 December as military training holidays and liberal leave days for our civilian employees.

From Stuttgart, Germany, to Kwajalein Atoll to Camp Buckner, Okinawa, soldiers and civilians are shouldering a heavy burden as they willingly sacrifice the comforts of home and family so others may remain safe and secure. You are the best at what you do and you can be proud of the achievements made this past year.



Lt. Gen John Costello

As we make plans for our celebration activities, keep in mind the very nature of these activities exposes us to hazardous situations and conditions. Drive responsibly, celebrate in moderation and watch for cold weather hazards that can ruin an otherwise great holiday season. Remember: we can't replace a life!

The Nation is profoundly grateful and indebted to you for all you do. As you celebrate this holiday season, may each of you find joy and satisfaction knowing America is a safer and better place thanks to your sacrifices.

From my family to yours – Best wishes for a happy and safe holiday season!

JOHN COSTELLO  
Lieutenant General, USA  
Commanding

# Secretary/Chief send holiday greetings

As the first year of the new millennium comes to a close, we pause to reflect on the remarkable contributions that American soldiers have made to the nation and the world throughout our history. Over 225 years ago, our forefathers ushered in a new era dedicated to democracy and liberty. The spirit of independence that they kindled produced a nation that today is acknowledged as the greatest testament to the human spirit in the history of man: a nation so committed to the blessings of peace, hope, and liberty that it sends its best sons and daughters into harm's way to keep the flame of freedom burning for all mankind.

Preserving liberty requires tremendous personal sacrifice. Like our forefathers, many of whom gave their young lives to the cause of liberty, today's soldiers willingly shoulder the heavy burden of standing guard on the frontiers of freedom. Each day, from Kosovo to Korea, from Saudi Arabia to East Timor, and in more

than 60 other countries, men and women of the United States Army face the possibility of danger; they willingly sacrifice the comforts of home and family so that others may remain safe and secure.

The men and women of the U.S. Army are the best at what they do. Highly trained and highly motivated, they know that the freedom and security of our nation—and that of our friends and allies—depend on their ability and dedication. They serve out of a love for what America represents—liberty, justice, and respect for human dignity. They serve because they know that they are mankind's best hope for bringing peace, order, and stability to the most troubled areas of the world.

America is profoundly grateful

and indebted to you, the American soldier, for everything you do. As you celebrate this holiday season, many of you deployed far from home, may each of you find joy and satisfaction in the knowledge that because of you, America is a safer and better place; that because of you, America remains a shining beacon of hope to the less fortunate peoples of the world who look to us for leadership.

We wish you a happy and safe holiday season and a peaceful New Year.

Eric K. Shinseki  
General, United States Army  
Chief of Staff

Louis Caldera  
Secretary of the Army

Happy Holidays  
One and All

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# Army astronaut soars on *Discovery*

by **DJ Montoya**  
**Colorado Springs, Colo.**  
**Photos courtesy of NASA**

"I have to tell you, being in space is just a thrill," said Col. William S. McArthur Jr., U.S. Army Space Command's senior astronaut, recounting his role on board STS-92. "It's just like an adventure every time you turn around."

McArthur, as Mission Specialist -2, was one of a seven-member crew which included: Col., USAF, Brian Duffy; Lt. Col., USAF, Pam Melroy; Cmd. (USN) Michael E. Lopez-Alegria; Leroy Chiao; Peter J.K. "Jeff" Wisoff; and Koichi Wakata.

During the 12-day shuttle mission, a \$273 million structural truss and a \$20 million shuttle docking port were installed on the International Space Station. These two major components increased the mass of the ISS by about 10 tons to a total of about 80 tons.

By all accounts, the 100th space shuttle mission STS-92 was a success despite a number of hurdles both before launch, which was delayed four times, and just before landing when bad weather forced the shuttle to touch down at Edwards Air Force Base, Calif. There was also the loss of Discovery's Ku satellite dish during the first full day of the mission resulting in no live video feeds throughout the flight. But when the 'going got tough' this tough team got going and it did not dampen their spirits. Case in point was McArthur.

The highlight for this third time veteran of the shuttle was his first of two space walks during the mission with partner civilian Mission Specialist -1 Chiao. Together they spent over six hours making various connections on the Z1 truss, setting up two communications antenna assemblies and installing a toolbox for future construction.

"Somebody accused us on this flight of being very greedy," said McArthur jokingly. "This was my first opportunity to do any space walks. And, by golly, each team got to do two of them so we have no complaints."

Looking back on the accomplishments of the 12-day mission, McArthur pointed to the importance of the crew's work.

"We've got a fantastic fledgling outpost in space now, but it is time to turn it into something much more than that."

"There are two really key things about living in space. Things that you just really have to plan around. You have to be able to provide power and you have to be able to communicate."

According to McArthur, the biggest challenge for the crew was getting to know this unique ISS hardware, insuring that it has been integrated properly into the shuttle and understanding how it interfaces into the rest of the space station.

Looking back on the completed work involving the ISS McArthur compared it to a race.

"It is almost like you've been preparing for a big race. Everyone has been working hard getting to the starting line. The starter's gun goes off and then we finally get to the business at hand."

And what will be the end results from all the work done during mission STS-92?

"We're all cheering for Bill Shepard, Sergei Krikalev, and Yuri Gidzenko. We couldn't wait for them to get up here. And by golly our chests swelled with pride when they arrived up there and we know the laboratory and station that they're working in is something that we had a little hand in building."

He stressed that one of the things that the ISS crew will find different when they arrive is the ease of adapting to living in space and a normal work environment.

"I think what they (the ISS crew) are going to enjoy the most is that over a long duration you can really physically adapt to zero G."

"Here on an 12-day shuttle mission when we get through a physical adaptation for a few days we work at a pretty intense pace because we are trying to accomplish so much in such a short period of time. I think they are going to like the sense they aren't visiting space—they are living in space."

"And the ground control has an opportunity to look a week or two weeks ahead instead of trying to preplan everything for tomorrow. So I think the sense you're in a

normal work environment is something they are going to really enjoy."

When summing up this mission and his third venture into space McArthur's quote during his first space walk on Oct. 16 says it all, "This is too cool!"



Astronaut William (Bill) McArthur, appears suspended over the Earth during a space walk near the longerons of the Space Shuttle Discovery.



From left, astronauts Pamela Melroy, pilot; Koichi Wakata, mission specialist representing Japan's National Space Development Agency (NASDA); and William McArthur, mission specialist, team up for some inflight maintenance on a temporarily extracted part of a flight deck panel. They were part of the seven-member Space Shuttle *Discovery* crew from Oct. 11 - 26.

## Newspaper staff seeks people-oriented articles

by **Jonathan Pierce**  
**The Eagle Editor**

Army newspapers have always existed to support the commander's need to communicate with soldiers, civilian employees, military and civilian family members, and contractors. Closely aligned with this top-down information flow is a recognition that people both need and want to be entertained.

The diversity of operations and the geographic dispersal of SMDC magnify the need to inform all of the SMDC audience about the wide range of command activities and to generate increased understanding and unity of effort throughout the command. But a presentation of just the facts leads to an unbal-

anced publication—one so lacking in interest or entertainment that you, the intended audience, won't read it.

As Sgt. Friday used to put it on *Dragnet*, "There are seven million stories in the city."

I've heard of people with interesting hobbies like building racing cars, flying hot air balloons, and competitive pistol marksmanship. If you know of co-workers who excel on the job (e.g., employee of the year) or who lead interesting after hours lives we'd like to tell their story to the SMDC family.

*The Eagle* staff is also trying to recognize soldier, civilian and family member promotions, awards and accomplishments. Most recognition will be in a listing such as officer promotions. We might recognize Mrs. Sally

Jones for her promotion to Marketing Manager for XYZ Corporation, Jeffery Jones Jr. for achieving Eagle Scout rank in the Boy Scouts of America or Krisitie Jones for being selected to an all-state high school basketball team. Graduations—especially with honors—I think fit into what we're trying to do.

Submissions must include the person's first and last name, relationship to an SMDC military or civilian employee, the employee's name, position and organization, and a description of the achievement or hobby.

Help us to find and tell the stories you'd be interested in reading. We'll enjoy the opportunity.

Send an e-mail with the details to: EagleEditor@smdc.army.mil.

# JTAGS detachment changes command

**Story and photos by DJ Montoya**  
**Colorado Springs, Colo.**

**OSAN AIR BASE, KOREA—**“JTAGS PAC, I wish you Godspeed as you continue to stand the watch. I will always look back on these days with pride, having been one of you,” said Navy Lt. Tonya H. Wakefield.

At an unusual U.S. Army Space Command change of command ceremony for the Joint Tactical Ground Station Detachment Pacific on Nov. 17, Wakefield turned over her command to Navy Lt. Arlene J. Gray.

Five JTAGS detachments deployed worldwide disseminate warnings, alerts and cueing information on tactical ballistic missile launches, and other tactical events of interest throughout their theaters of operation using existing communications networks.

Participating in the ceremony with Wakefield and Gray were Commander of the

Troops, Sgt. 1st Class Ralph Burns, and Lt. Col. Timothy Coffin, commander of the Army's First Space Battalion. Navy Cmdr. James E. Russell presided over the Navy portion of the command turnover.

Wakefield welcomed Gray and introduced her to the unit. “She is coming in fully qualified with a master's degree in Space Operations from the Naval Postgraduate School. She comes in confident, ready, and the troops already love her,” said Wakefield.

Wakefield recalled giving a shelter tour of the JTAGS equipment to someone who remarked they would sleep better knowing this unit and its equipment are here.

“We all sleep a lot better knowing our soldiers and sailors are here and watching those missiles,” she said. “We initiate missile warning, we don't just pass it on. We generate it. These folks at the E5 and E6 level, they put out a warning that goes worldwide

all the way to the national military command center with no one censoring it. You've got to appreciate the work they do,” said Wakefield.

Gray remarked on how she felt in taking command of this special unit.

“The right word as to how I feel today is confident. Confident in the turnover I received from Lt. Wakefield. Confident in all the JTAGS soldiers and sailors at this detachment. Confident in the support I will receive from Army Space in Colorado Springs. Confident that we will not let this ship go aground,” she said.

Command Sgt. Maj. Wilbur Adams and outgoing JTAGS PAC Detachment commander Navy Lt. Tonya Wakefield share a light moment. Adams has the unique ability to say that some of his soldiers—are sailors. All JTAGS crews have both enlisted soldiers and sailors.



Navy Lt. Arlene Gray accepts the guidon as a symbol of her command from Lt. Col. Tim Coffin.

## Battle Lab brings vital resources to new effort

“The purpose of this memorandum is to provide a basis between the U.S. Army and the National Aeronautical and Space Administration (NASA) in the development of technology for advanced engineering environments, simulation and training. The mutual investments of both the U.S. Army and NASA can be significantly enhanced by cooperating in areas of common technological benefit and leveraging unique strengths of each organization,” these are the opening remarks of the recent Memorandum of Understanding (MOU) signed by the Secretary of the Army, Mr. Louis Calera and the NASA Administrator, Mr. Daniel Goldin.

With this MOU in front of them, a team of Space and Missile Defense Battle Lab (SMDBL) employees, Mr. Will Kistler and Mr. Ron Liedel set out to meet with other government agencies and local contractors to discuss how we can all use the MOU, become team players and address some key technology issues important to NASA and the Army.

In March of this year, the SMDBL team, along with their Advanced Research Center (ARC) contractor, COLSA, another contractor AEgis Technologies, and government personnel from the Aviation and Missile Command's Research, Development and Engineering Center (AMRDEC) and Marshall Space Flight Center's Army-NASA Virtual Innovations Laboratory (ANVIL), began the process of seeking methods for doing cooperative efforts. Each organization brought a level of experience and capabilities to the table. The SMDBL team came into this concept with decades of experience in missile

defense technologies, advanced computing, battlefield management command, control and communications, software tools, communications/networking experience and capabilities along with decades of knowledge in the use of distributed simulations.

The SMDBL and computer facilities located within the Advanced Research Center (ARC)/Simulation Center, along with the ARC contractor, all contribute to form a positive and dynamic capability for the Space and Missile Defense Command's (SMDC) team. With concurrence from senior SMDBL leadership, and guidance from the command's Legal office, this SMDBL team was formally put together in April 2000.

AEgis Technologies, under the leadership of Mr. Bill Waite, proposed to take the lead on preparing a proposal to NASA and to have government personnel along with several local and regional institutions and commercial firms join AEgis Technologies in bidding on this NASA solicitation.

“This whole concept of joining or becoming part of a government/contractor group and bidding against other contractors on a NASA effort is totally new to the command and to many of our DOD contractors” said Kistler.

Kistler's boss, Mr. Larry Burger, director of the Battle Lab and a senior executive within SMDC, said “We have never worked with industry like this before. We are pleased with this transaction, and we are looking forward to this and other opportunities to lend the expertise of our staff to such critical programs.”

NASA is pursuing the crucial next-gen-

eration (2<sup>nd</sup>) Re-useable Launch Vehicle (RLV).

“This group's intent was to provide input into the challenges that can be addressed in the Risk Management effort of the NASA proposal,” said Kistler.

Liedel added, “We intend to provide NASA both information about and demonstration of integrated design and analysis tools for the 2<sup>nd</sup> Generation Reusable Launch Vehicle (RLV) Program.”

“Our research will evaluate tools which can be used for systems engineering level trade studies, can ensure the use of consistent and common data and can be integrated in a distributed environment across NASA, other government agencies, and industry. This research effort will culminate in a report on the status of tools that currently exist for these purposes and what will be required of future developed tools to meet NASA's system engineering needs,” said Waite.

Waite, along with AEgis Technologies's Mr. Joe Townsend, was instrumental in preparing the package being sent to NASA. The SMDBL team was instrumental in providing input into the proposal by identifying the required tools, software, hardware, communications/networking and models that can be used for this effort. “Competition will be severe with the likes of Boeing and Lockheed expected to offer support to RLV, but we hope that the value of this type of new business enterprise will be evident to the government” said Waite.

# Security Awareness Day draws crowd

Individuals from Kwajalein Atoll in the middle of the Pacific Ocean to the mountains of Colorado and the white sands of HELSTAF, to Alabama and Virginia shared a common focus on security Nov. 30 within the U.S. Army Space and Missile Defense Command (SMDC).

The importance of security awareness was emphasized by Lt. Gen. John Costello, the SMDC commanding general.

"The command's activities are among the most visible and sensitive within the Department of Defense, and are routinely targeted for exploitation," stated Costello. He noted that many people try to exploit the computers, telecommunications, lapses in security, even the garbage of the command. "These threats are growing increasingly diverse and sophisticated; they demand that we remain vigilant," he said.

SMDC Security Awareness Day was spon-

sored by the deputy chiefs of staff for Intelligence, Information Management, and Operations, as well as the security teams in various locations, according to Col. James Ward, the SMDC Intelligence chief.

"Our intent was to expose our folks to the many facets of security as a refresher and to keep security in the forefront of their minds," he said.

"We are in a very important and exciting business. Our folks must appreciate the importance, sensitivity, and visibility of our programs, operations and technologies," said Ward. Thwarting exploitation efforts takes the awareness of every individual and a sound application of security fundamentals," he said.

Ward recognized Brenda Turner for coming up with the idea of having a day's activities focused on reintroducing the command to these fundamentals.

In Huntsville, Ala., Bonnie Fuqua of the

Defense Security Service (DSS) spoke with employees about the DSS missions of doing background security checks and working with DOD contractors to develop security programs to protect DOD. Fuqua explained that the DSS can act as a clearinghouse for contractors taking their questions and concerns and directing them to law enforcement and intelligence agencies when appropriate.

Mike Belcher of DCSOPS gave visitors a sober lesson on achieving personal and facility security. Belcher displayed the simulated mailed bomb everyone expected to see. However, it was the little tennis ball size object that drove the lesson home. The 3.5 ounce bomblet could be filled with nerve agent chemicals or gas sufficient to kill everyone in the Huntsville facility. Belcher noted that if the bomblet isn't bad enough, some terrorist groups could remove these chemical agents from the bomblets and disguised them in small glass jars.

Jacquelyn Wiggins of DCSINT displayed a Personnel Security "wheel of misfortune." The wheel displays the problems employees can fall into. They include: Misuse of government information systems, excessive absenteeism, money problems, unexplained affluence, arrests, mental instability, disregard for security regulations, close foreign connections, disciplinary actions, and drug and alcohol abuse.

"Some people have these problems and they're afraid they'll lose their security clearance if they ask for help," Wiggins said. "Our objective is to help them keep their security clearance [and thus their jobs] by helping them with their problem. We have financial counselors and drug/alcohol counselors who can help," she said.

It didn't matter what location SMDC employees were nor was it important that they came away with specific knowledge.

"I believe the most important thing about this event is that we are consciously taking the time to focus on this important topic and to heighten our security awareness," Ward said.

Ward welcomes comments about security and offers a feedback questionnaire on the Commandnet homepage.



Photo by Steve Gover

Mike Belcher, DCSOPS, shows Carolyn Meadows (DCSRM) a simulated bomblet used for distributing nerve and gas chemical agents. A real bomblet would be enough to kill everyone in the Huntsville facility.

## Physical Security vs Personal Convenience

# Tech devices pose security problem

Security can be such a pain in the neck. What do you mean I can't use my Palm Pilot in the office? It's the best use of technology to help me stay organized and keep my appointments straight. What's that you say? I can't bring my cell phone or my two-way beeper into the building either. Those security people are just paranoid nuts.

Sometimes, for being as technologically literate as members of the Space and Missile Defense Command (SMDC) are, we fail to appreciate the security risks posed by these labor saving devices. The technology of personal organizers, cell phones and beepers not only increases our personal productivity, it also presents espionage agents with an unprecedented means of gathering intelligence from unsuspecting sources.

At the SMDC Security Awareness Day 2000 held in Huntsville, Ala., and Arlington, Va., on Nov. 30, security specialists presented some down-to-earth examples of how technology could be used to damage the interests of the United States if we are not aware of the risks and fail to protect sensitive or classified data.

Casio, the watchmaker, is a case in point. The company has developed a wonderful watch for the genealogist working on his

or her family tree at the National Archives or a county courthouse. The watch is also a digital camera. Penney's, the department store, didn't miss out on the security implications. Their advertisement for the \$200 "wrist camera" begins: "For the James Bond wannabe." Carl Ghent, a physical security specialist in Huntsville was quite sure that anyone, federal employee or visitor, caught wearing one of these watches in the restricted buildings of SMDC would be detained and law enforcement/intelligence agencies would be contacted to seize the wrist camera. At the least, he said, such an event would be embarrassing and time consuming for the individual.

New technology, known as "Blue Tooth," gives personal organizers, cell phones, two-way beepers, laptop computers, wrist cameras and similar devices the ability to communicate via wireless means. Ghent notes the DOD Security Policy Board anticipates that more than 449 million devices will use "Blue Tooth" wireless technology by 2004. Worse still, he said, they will be netlinked. That is to say they will have the means of loading data and instantly transmitting it to the global world wide web. A moment's thought about the security implications of this technology reveals that we face secu-

urity challenges such as we have never seen.

Which is the worst pain in the neck: security measures meant to minimize the technological risk—or the investigations and remediation actions that would follow security breaches caused by a failure to implement security safeguards?



The Casio Wrist Camera Penney's advertises as being "For the James Bond wannabe."



# Tradex keeps an eye out for cosmic debris

by Peter Rejcek  
Kwajalein Atoll

Last month, a *Gone Fishin'* sign might have hung on the door to the control room at Tradex.

But it wasn't mahi mahi that engineers were fishing for. Instead, they were using the radar's powerful eyes to search for needles in a cosmic haystack — space debris no larger than a softball that poses a serious hazard to satellites, space shuttles and the galaxy's newest manmade wonder, the International Space Station.

"Space debris is a growing concern of NASA and Space Command," explained Steve Six, Tradex test director for debris missions.

Six said there are about 9,000 objects, 10 centimeters or bigger, that have been cataloged. Unfortunately, there's an estimated 100,000 smaller objects that are not cataloged or tracked, he said. That's a problem because an object like the space shuttle or the space station is only armored to withstand a hit by debris 1 centimeter or smaller.

"The longer your exposure, the higher the probability of a problem," Six said.

How much damage can something the size of a commander's coin, or even smaller, actually do? Six said a 3-centimeter object, traveling at 10 kilometers a second, packs the same punch as 1 kilogram of TNT. That's enough dynamite to shoot an economy car a thousand feet straight into the air.

"There have been collisions in space already," Six said, but

added that nothing catastrophic has happened — yet. That's where Tradex and other radars, including Altair and GBR-P, come in.

Since 1989, Tradex has participated in 18 debris campaigns, nicknamed "Stare and Chase." The object of the game is for the radar to spot an object and then attempt to successfully track it, so that it can be cataloged.

"There's a real art in going from detecting to tracking," noted Tim McLaughlin, Tradex assistant test director for debris missions.

The difficulty is that the Tradex beam, covering an area in the sky about the size of the moon, is pointed at one location in space waiting for an object to pass. The space junk, traveling at 10 kilometers per second, is barely glimpsed before it's already out of sight. Based on just a blip of information, the radar's computer tries to define the object's trajectory. At the same time, the computer can determine whether or not the object was previously cataloged. If not, the game is afoot.

"It's like space fishing," Six said. "These debris campaigns are fun."

Tradex most recently went fishing Oct. 27-28, along with GBR-P, which participated in Stare and Chase for the first time.

"We're really pleased to have the opportunity to do it," said Gail Sikes, GBR-P government representative.

Results of the October campaign are still pending. Last year, Tradex detected 69 objects and



(Photo by Peter Rejcek)

Size doesn't matter when you're talking about objects hurtling through space at 10 kilometers per second. From left, Denise Comeau, Tradex sensor leader, Steve Six, Tradex test director for space debris missions, and Tim McLaughlin, Tradex assistant test director for space debris missions, hold up objects representative of the types of space debris that could possibly impact a satellite, space shuttle or even the new space station.

tracked 38. With cooperation from Altair, three objects were eventually added to the space catalog, Six said.

The space debris can be anything from an errant bolt to a flake of paint. Much of the debris results from a launch. Tradex engineers estimate there's a space launch at least once or twice a week, meaning there's a lot of junk out there that has to be avoided. Six said NASA simply doesn't have the resources, or the capabilities, to ensure that a serious collision won't take place.

"They don't have the sensors to do it right now," he added. "It's not a problem Tradex could solve alone."

Denise Comeau, Tradex sensor leader, said the radar is capable of supporting a network of radars. In fact, Tradex is particularly good for this type of space fishing because it can move fast, thanks to its hydraulic-powered antenna drive. Those 220 tons can move about 12½ degrees a second.

"It's the fastest antenna at KMR," Comeau said.

It's certainly the world's biggest fishing pole — and soon Tradex engineers will know if they got any keepers, i.e., cataloged debris, from their latest campaign.

"We'll get the cooler and get ready to throw them in," McLaughlin said.

## Exit survey gives civilians opportunity to improve federal service

by Joe Burlas  
Washington, DC

**WASHINGTON (Army News Service, Nov. 7, 2000)** — Department of the Army civilians leaving Army employment now have a formal opportunity to share their reasons for moving on with commanders and personnel managers through a web-based exit survey.

The goal of the survey is to determine which Army programs and policies can be implemented or improved to help retain the best employees and better manage the civilian workforce, said Scott Nier, a personnel psychologist in the Office of the Assistant Secretary of the Army for Manpower and Reserve Affairs.

"If we know where the problems exist, we have a better chance of making the right fixes," Nier said. "Up until now, there was no Army-wide program in place to find out why employees leave."

Located on the web at [www.cpol.army.mil/survey/exitsurvey/survey.html](http://www.cpol.army.mil/survey/exitsurvey/survey.html), the survey asks 35 questions about Your Work, People You Deal With, Advancement/Recognition, Com-

pensation/Benefits, Resources/Location and Other categories. Respondents can indicate that the question doesn't apply or on a five-point scale whether they agree a factor such as commuting time was a reason in the decision to move on from an Army civilian job. Respondents then select which of the 35 questions were the top five reasons they

decided to leave.

No names are used on the survey and all responses are confidential, Nier said.

Survey results will be collated for statistical reports and sent to local, major command and Army leaders and personnel managers. While those reports are currently sent in print format, they will be available on the web

within the next year, Nier said. Additionally, the survey will soon be updated to include Non-Appropriated Fund employees leaving Army service.

"We want the Army to be a more desirable employer for those currently serving as civilians and for those we hope to recruit — the survey will help us do that," Nier said.

## Shinseki decides black berets will use universal flash

by Joe Burlas

**WASHINGTON (Army News Service, Nov. 30, 2000)** — Ending the discussion whether soldiers will wear distinctive unit flashes on their black berets when they are initially issued in June, Chief of Staff of the Army Gen. Eric K. Shinseki recently decided on a universal flash.

All soldiers will initially wear the universal flash, except for those in units that already have berets, such as Ranger, Airborne and Special Forces. These troops will continue to wear the beret flashes they currently have.

The new flash, worn on the left front of the beret, is a semi-circular shield 1-7/8 inches wide and 2-1/4 inches high. It has a bluebird background with thirteen white stars superimposed just inside its outer border. Officers will wear their rank in the center of the shield.

"The flash is designed to closely replicate the colors (flag) of the commander-in-chief of the Continental Army at the time of its victory at Yorktown," said Pam Reece, an industrial specialist with the Army's Institute of Heraldry.

Shinseki said the beret will symbolize the Army's transformation to a lighter, more

deployable force.

"It is time for the entire Army to accept the challenge of excellence that has so long been a hallmark of our special operations and airborne units," Shinseki said. Adopting the berets will be "another step toward achieving the capabilities of the objective force" of Army transformation, he said.

While U.S. Army Rangers have worn the black beret since the mid-1970s, they have not had a monopoly on the stylish cap. Prior to the Rangers adopting the berets, they were worn by armor troops at Fort Knox, Ky., and others in armored cavalry units.

# Army Knowledge Online gets 100,000th customer

In just 18 months, the number of Army Knowledge Online (AKO) users has soared to 100,000. Sgt. Dewayne C. Dodson Jr., a mechanic currently serving in Bosnia with the Army's 3rd Infantry Division, became AKO's 100,000th user earlier this month.

AKO enables customers like Dodson to gain quick online access to important Army information, news, education and training opportunities, as well as knowledge centers and e-mail. In addition to processing personnel applications and finding information pertinent to military jobs through AKO, Dodson and other soldiers can communicate with families and stay in contact with peers throughout the world using the Army's web-based service.

AKO is a leading component in the Army's commitment to knowledge management and becoming an information-centric organization.

"We're creating an integrated, personalized Intranet capability for the Army enterprise that is better than anything they have at home or in the commercial marketplace. Not only is AKO the 'one stop' for

Army information—including a career lifetime email address, customizable portal, and online transaction processing capabilities—but AKO is also accessible to its customers anywhere in the world," said Miriam Browning, the Army's director of Information Management.

AKO offers powerful technologies to share information more effectively and make work more efficient—literally changing the way the Army conducts business. Recognizing that an organization's most important asset is its members' intellectual capital, knowledge management is a systematic process for acquiring, creating, synthesizing, sharing, and using information, insights, and experience to achieve organizational goals.

AKO is part of the Army's Transformation into the 21st century.

"The Army is not just transforming 'heavy metal,' it's transforming infrastructure—web enabling processes—and looking at a future where people will rely on Internet technology like it's second nature," said Col. Robert L. Coxe, director of the

Strategic and Advanced Computing Center at Fort Belvoir, Va.

The Strategic and Advanced Computing Center put its energy behind building the most dominant Internet communications, information sharing and decision support enabler available to the Army today. Knowledge management continues to reap significant cost savings and efficiency rewards for the Army.

AKO also offers appealing recruitment and retention incentives for increasingly computer-literate young people and motivates soldiers to take responsibility for their own time and information, enabling the Army to do more for less cost and to better anticipate future requirements.

For more information contact Miriam Browning, Director for Information Management, 703-695-5489, [Miriam.browning@us.army.mil](mailto:Miriam.browning@us.army.mil); or Lt. Col. Roderick Wade, 703-704-3727, [roderick.wade@us.army.mil](mailto:roderick.wade@us.army.mil). Internet availability for AKO program: [www.us.army.mil](http://www.us.army.mil).

Article provided by ArmyLink News Release.

## Dual-military spouses can be stationed together

by Michele Hammonds

**WASHINGTON (Army News Service, Nov. 27, 2000)** — Some dual-military spouses endure long separations throughout the year because of work assignments, but not if the Married Army Couples Program (MACP) has anything to do with it.

The program aims at keeping dual-military families together when possible, according to Donny Dennis, military personnel specialist of the Officer Distribution Management and Mobilization Branch, who handles the officer MACP program. He said the program is designed to provide a way service couples are considered for assignment to establish a joint household while fulfilling the mission of the Army.

To date there are 5,071 officers who are enrolled in the program. About 80 percent (4,100) are officers serving in Army-approved joint domicile assignments. Approximately, "one third move yearly," said Dennis.

There are 21,922 enlisted soldiers enrolled in the program. Of that number 17,377 enlisted troops are serving in joint domicile assignments.

Sgt. 1st Class Tim and Staff Sgt. Lee Donahue know the benefits of the program.

That is why the Donahues who married in 1994 while stationed in Germany chose to enroll in the program.

"We are grateful the program has allowed us to be together," Lee said.

However, she doesn't take the program for granted.

"When you marry another military member with the same MOS (military occupational specialty) you have to be realistic and cognizant that it will be difficult if you are the same rank," said Lee who expects to be promoted sometime next year. "It's hard because we can't be in each others rating chain."

The couple who are both Army broadcasters by trade have managed to be stationed together except for a short time in Korea when Tim took another job offer in Camp Casey, Korea — 30 to 45 miles away while Lee stayed in Seoul 18 out of the 24 months the couple was there.

"It was a great job and we made the decision that he would live up there," Lee said. "We saw each other on holidays and weekends."

Now the couple is stationed at Fort Meade, Md. Lee works for the Army Public Affairs Center and Tim works at the Defense Information Center.

Like the Donahues, Chief Warrant Officer 2 Aundrey and Staff Sgt. Sherrilynne Cherry also enrolled in the program after they met in Germany and married shortly afterwards in 1991.

After the Cherrys enrolled in the MACP, Sherrilynne's assignment orders for Fort Lewis were deleted and she rejoined her husband at Fort Carson a couple months later.

Now stationed at Fort Bragg, N.C., the Cherrys said they don't want to be separated because one of their two daughters is enrolled in the Exceptional Family Member Program.

Officers and soldiers wanting to enroll in MACP need to submit an application (DA Form 4187- Personnel Actions) along with a copy of his or her marriage certificate through the Personnel Administration Center to the servicing Military Personnel Division Personnel Service Battalion. The spouse information must be entered on both soldiers for enrollment.

For more information about MACP, officers can call Dennis at DSN 221-5191 or (703) 325-5191. Enlisted soldiers can call Shirley Hodge at Plans Procedures and Operations Branch at DSN 221-2738 or (703) 325-2738.

## Budget Adds Major TRICARE Benefits for Active Duty

by Staff Sgt. Kathleen T. Rhem, USA American Forces Press Service

**WASHINGTON, Nov. 30, 2000** — Active duty members and their families should look for major new benefits coming soon in DoD's TRICARE managed healthcare plan, a senior program official said.

Air Force Col. Frank Cumberland, TRICARE Management Activity director of communications and customer service, said the most publicized TRICARE change in the defense budget signed Oct. 30 has been the opening up of benefits to Medicare-eligible retirees age 65 and older. The coming wave of change, however, won't overlook active duty members and families, he added.

Some of the benefits being added to TRICARE within the next year include:

- Active duty family members will no longer have to make co-payments for care from a civilian provider after April 30, 2001.

- Family members of active duty troops in remote locations become eligible for the TRICARE Prime Remote program Oct. 1, 2001.

- DoD will have a five-year period to phase in making chiropractic care available to active duty troops.

TRICARE and health affairs officials are still working out the details on these changes and will announce them when plans are complete, Cumberland said.

TRICARE managers are also working to increase access to school physicals, eliminate the need for some nonavailability statements and some referrals for specialty care. Some of these issues may not come to pass before a new TRICARE contract is awarded, perhaps in 2003 or 2004, program officials advised.

Dr. H. James Sears, executive director of the TRICARE Management Activity, called

the changes outlined in this year's budget legislation "the biggest platter of benefit changes" since the mid-1960s. TRICARE, he said, is adding benefits and continues to lower beneficiaries' out-of-pocket costs and, in the process, is taking the irritants out of the TRICARE program and improving accessibility."

Sears added that people generally evaluate their healthcare system based on three factors:

- The quality of care.
- The range of benefits. "Does my plan cover everything that might happen to me?" Sears said.
- Cost. "Can I afford it?" he said.

"When you look at TRICARE, those are all slam dunks," Sears said.

For more information, visit the TRICARE Web site at [www.tricare.osd.mil](http://www.tricare.osd.mil).



Space & Missile Defense  
Personal Achievements

NCO of the Year

SGT Charles Johnson Kwajalein

Years of Federal Service

John Thomas	35 years
James Williams	35 years
Barney Powell	35 years
Duane Stott	30 years
F. David Crawford	25 years
Gayle Pridmore	25 years
Rodney Robertson	20 years
Deborah Elliott	20 years
Dennis Stout	10 years

Awards

LTC Charles Ehlers	MSM
CPT John Eggert	MSM
CW2 Robert Peterson	MSM
SSG Shigley	ARCOM
John Marrs	Meritorious Civilian Service Award
Elaine Lawson	Superior Civ Svc Medal & Commander's Award for Civ Svc

Promotions

Lynn Light	GS-11
Omega Tyson	GS-7

Memos of Appreciation

Christi Perkins	LTC Doug Barton
Don Mathis	Charlie O'Neal
Gil Adams	Barbara Rogers
Candace Holcomb	Dana Henslee
Dale White	Jacquelyn Kowallik
Dennis Marguriet	Steve McKay
Karl Fastenrath	Cindy Green
Frankie Yarbrough	Mona Neal
Gary Adams	David Crouch
Gary Ledbetter	Debby Heidt
LTC Maitland M. Browning	Carolyn R. Caudle
Diana Cochran	Dottie White
SSG Brent Maloy	Ellen Smith
Mary Hobbs	Carolyn Meadows
Gary Ledbetter	Fred Mathews
Mack McCrary	Mike Andrews
Thomas M. Craven	William R. Mull
Eric Pistorius	David Crouch
Amy Bradley	Shirley Childers
Christella Green	Christine Smith
Ray Crumpler	SFC Bennie Martin
Nancy Huffaker	Johnetta R. Graves
Sharon C. Graham	Sybil Baker
Marco Morales	Sharon W. Lang
Steve McKay	Charlene Williams
William Bet-Sayad	Johnny Baldwin
Esam Gad	David Sayles
Patrick Tilley	Jim Fears
Andy Dobbs	Ricardo Parks
David Mayo	Shelia Noel
Stephanie Wacenske	Marilyn Williams
Charles R. Lemar	Wheeler K. Hardy
Richard Brown	Jan Faircloth
Eugene Walker	Thaddeus Brown
Andrew Johnson	Martin Goodman
Michelle Smartt	Kevin Creekmore
Ron Liedel	Terri Jo Russell
Frankie Yarbrough	Julie Hanson
Carolyn Beverly	Jeff Garrett
Beth Andrews	Jack McCreary
Elaine Waldrep	Cris Foster
Jerry White	Susan Ridgeway
Greg Walls	Hudson Harris
MSG William Peeler	Ms. Anne Moore
Ms. Cheryl Jordan	Lori Relford
Sharon Staten	Kim Smith
Jeffery Olson	Guadalupe Rico
Danny Pierce	Pat Pirkle
Dave Mann	Jean Winfrey
Barbara Coleman	Lorie Johnson
Bonnie Gamino	Karen Stork
Reggie Anderson	Tom Dang
Neel Esslinger	Shirley Cates
Sharon Whitaker	Sandra Ervin
Sherry M. Morris	Reaphel D. Graham
Ellen Smith	Susan Jones
SFC Brent Maloy	Rosa Gore
William Wimberly	SFC John Devenger
Verla Dunbar	MAJ Triest Smart

SMDC officers selected for  
Command and General Staff College

MAJ Christopher Baker	ARSPACE
MAJ Timothy Bock	Battle Lab West
CPT(P) Jerome Driscoll	ARSPACE
MAJ Lee Gizzi	ARSPACE
MAJ Robert Johnson	ARSPACE-NASA
MAJ Robert Kimbrough	ARSPACE-NASA
MAJ James Moffat	ARSPACE-NASA
MAJ Edward O'Neill	HQ USASMDC
MAJ James Patterson	ARSPACE
MAJ Scott Rauer	ARSPACE-NASA
CPT(P) Kelly Spillane	FDIC
CPT(P) Terry Torrace	ARSPACE
MAJ George Wingfield	ARSPACE



Photo by Sharon L. Hartman

ARSPACE personnel, both military and civilian, take an active interest in keeping their roadways clean as a part of a Colorado Springs Adopt a Highway program.



Photo by DJ Montoya

Specialist Robert Kimmerle, B Company, 1st Satellite Battalion, prepares to fire from the prone position during M16 qualification training at Fort Meade, Md.



Photo by Rhonda Paige

Runners from the U.S. Army Space and Missile Defense Command in Arlington participate in the Headquarters, Department of the Army Run Nov. 9. The formation run was required of military personnel while Department of the Army civilians were invited to participate.

Start the New Year happily

Celebrate wisely

Drive defensively